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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,749	07/02/2003	Richard L. Copeland	C4-1151	5552

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IP LEGAL DEPARTMENT  
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EXAMINER

HO, TAN

ART UNIT PAPER NUMBER

2821

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/612,749

Applicant(s)

COPELAND ET AL.

Examiner

Tan Ho

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11, 13-15, 18-23, 26-29, 34, 36-38, 41, 42, 44 and 45 is/are rejected.
- 7) ☒ Claim(s) 7-10, 12, 16, 17, 24, 25, 30-33, 35, 39, 40 and 43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/14/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Parsche et al (US Patent 6,731,246).

Parsche et al disclose, in figure 1, a loop antenna comprising an elongated conductor 100, a plurality of phase compensation elements or capacitors 110 connected in series with the length of the conductor to improve the current distribution around the loop and adjust the center frequency of the antenna, column 4, lines 7-10. The patent to Parsche et al also teaches that the capacitors 110 are commonly used to help reduce the overall length of the antenna length to an arbitrarily small size that is much less than a wavelength at the operating frequency of the antenna, see column 4, lines 11-15.

3. Claims 1-6, 11, 13-15, 18, 19, 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Owen (US Patent 5,826,178).

Owen discloses, in figure 7, a loop antenna comprising a first loop antenna 230 having a plurality of phase compensation elements or capacitors 240a which are spaced equidistantly along the first loop antenna, a second loop antenna 233 disposed within the first loop antenna. The patent to Owen also teaches that the loop antenna are tunable to a desired resonant frequency, see abstract, lines 9-11, and one or more capacitors are in series along the antenna loop structure to establish a selected resonant frequency, column 2, lines 16-18.

4. Claims 6, 19, 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Hately et al (US Patent 6,025,813).

Hately et al discloses, in figure 7, a dual loop antenna comprising a comprising a first loop antenna 1 having a phase compensation elements or capacitor 12, a second loop antenna 2 disposed within the first loop antenna, wherein the first and second loop antennas are connected in series, and a capacitor 13 connected along the second loop antenna.

5. Claims 6, 11, 19, 21, 22, 26-29, 34, 42, 44, and 45 are rejected under 35 U.S.C. 102(e) as being anticipated by Briggs (US Patent 6,567,050).

Briggs discloses, in figure 4, an antenna system comprising a first loop antenna 50 having a plurality of phase compensation elements or capacitors (52a,52b) which are spaced equidistantly along the first loop antenna, a second loop antenna 56 disposed within the first loop antenna and having a capacitor coupled along the second loop antenna. The patent to Briggs also teach that the antenna system which is used to

generate strong coupling magnetic field between a reader and a tad or a EAS system, see column 1, lines 6-8 and 15-25.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 36-38, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Briggs in view of Parsche et al.

The patent to Briggs, described above, differs from the claimed invention because they does not teach the specific electrical length of the loop antenna. Parsche et al teach that the electrical length of the loop antenna vary depending on the value of the capacitor, column 4, lines 7-20. Therefore it would have been obvious at the time the invention was made to a person having ordinary skilled in the art to adjusting the value of the capacitor for the purpose of obtaining a desired frequency band as taught by Parsche et al.

***Allowable Subject Matter***

8. Claims 7-10, 12, 16, 17, 24, 25, 30-33, 35, 39, 40, and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The patents to Novikoff, and Platt et al are cited as of interest showing the antenna system similar to that disclosed.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Ho whose telephone number is (571) 272-1822. The examiner can normally be reached on M-F (8:00AM - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TAN HO  
PRIMARY EXAMINER